

Ages Grades
4-Adult PreK-12

Zoomy[™] Digital Microscope

CHOKING HAZARD - Small parts. Not for children under 3 years.



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1. Introduction

1.1 Feature of the Digital Microscope

The Digital Microscope is a battery free device to use with a computer via a USB port. It magnifies specimen up to 35X on a 14" monitor. Snapshots can be taken by simply pressing the shutter button on the product. Video recording is also available.

1.2 Product Detail

- ➤ Digital Microscope 1 pc
- Software Installation CD 1 pc
- Instruction Manual 1 pc

1.3 Computer Requirement

For Windows® Operating System RAM: 128Mb for Windows 98SE, ME;

256Mb for Windows 2000, XP:

512Mb for Windows Vista, Windows 7

CPU: P4 -1.8G Display: 32bit

Display RAM: 64Mb

USB: USB 2.0

Hard Disk Free Space: 800Mb or above

For Macintosh Operating System

RAM: 128Mb

Operating System: Mac OSX 10.4.8-10.6.2 CPU: Power PC G3/G4/G5 or Intel based

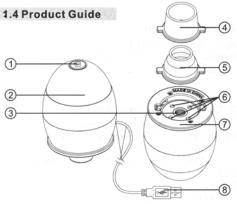
Macintosh computers

Display: Require QuickTime 6.5.1 or on

Mac OS X 10.4.8 ~ 10.6.2

USB: USB 2.0

Hard Disk Free Space: 800Mb or above



- Shutter Button
- 2. Focusing Ring
- 3. Lens
- 4. Adaptor 1- for face/scalp
- 5. Adaptor 1- for nose/ears
- 6. LED Illumination
- 7. Adaptor slot
- 8. USB Cable

1.5 Product Specification

White Balance: Auto Interface: USB 2.0

Image Sensor: 350,000 pixel VGA CMOS Image Resolution: 640 X 480 Pixels (VGA)

Snapshot Capture: Single Click on Shutter Button

Capture Image Resolution: 640 X 480 VGA (Interpolation up to 1600 X 1200 pixels.

Note: Interpolation requires DirectX 9.0 or above

for Windows® Operating System.

Interpolation up to 1280 X 960 pixels for

Mac Operating System.)

Exposure: Auto Luminosity: 3 Lux

Power: Via USB cable connecting to PC or MAC

Product Weight: 104g

Product Size: 50 X 50 X 74mm

Software Compatible Operation System: Microsoft® Windows 98SE, Windows ME, Windows 2000, Windows XP, Windows Vista,

Windows 7, Mac OSX 10.4.8 ~ 10.6.2

Microsoft® Windows 98SE, Windows ME, Windows 2000, Windows XP, Windows Vista, Windows 7 are trademarks of Microsoft ® Inc.

Macintosh, Mac OS, Mac are trademarks of Apple Inc. registered in the U.S. and other countries.

2. Installing the Digital Viewer ™ Software

- Microsoft Windows Operating System
 Make sure the Digital Microscope is not connected to your PC. Insert the Software Installation CD into the compact disc drive. The software should run automatically. If the installation does not start, open My Computer and locate the Digital Viewer Driver. Double-click Setup.exe to start the installation. (Please refer to 2.1, 2.2 and 2.3 for a detailed installation guide)
- ➤ Macintosh Operating System

 Make sure the Digital Microscope is not connected to your Mac. Locate the Digital Viewer Driver OSX1.04.dmg file on CD drive to start installation. (Please refer to 2.4 for a detailed installation guide)

2.1 For Microsoft® Windows 98 SE Computer

Once the CD is running, the Digital Viewer ™ Software Driver Set-up dialog box will pop up automatically. Click "Install"



Click "Finish" to complete the installation and restart the computer manually.



After the computer restarts, plug the microscope to the USB port of the computer. When the Digital Microscope is connected to the computer for the first time, The following dialogue box will appear and the "New Hardware Found" will be displayed.



Insert Windows 98SE CD-ROM into the CD-ROM drive, click "OK" to continue.

Note: If you do not have the Windows® 98SE CD-ROM, click "Cancel" to abort installation. The Digital Microscope cannot be successfully installed without the Windows® 98SE CD-ROM.

When the hardware installation is completed, short-cut icons will appear in "Programs" / "All Programs" on start menu, "Desktop" and "Taskbar" of the PC. The Digital Viewer can also be located in the "Device Manager" under Imaging Device.

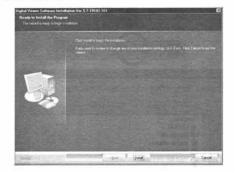




2.2 For Microsoft® Windows 2000 Computer

➤ Once the CD is running, the Digital Viewer TM Software Driver Set-up dialog box will pop up automatically.

Click "Install"



Click "Finish" to complete the installation and restart the computer manually.



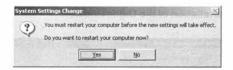
After the computer restarts, plug the microscope to the USB port of the computer. The following dialogue box will appear and the PC will automatically proceed to the hardware installation of the Digital Viewer.



Click "Finish"



A dialogue box will pop up prompting to restart the computer. Click "Yes" to restart computer



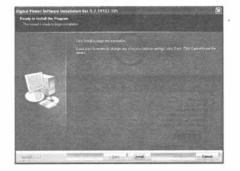
When the computer has been restarted, short-cut icons will appear in "Programs" / "All Programs" on start menu, "Desktop" and "Taskbar" of the PC. The Digital Viewer can also be located in the "Device Manager" under Imaging Device.



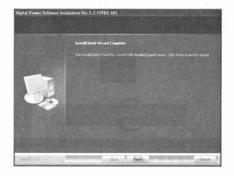
2.3 For Microsoft® Windows ME/XP/Vista/7 Computer

➤ Once the CD is running, the Digital Viewer TM Software Driver Set-up dialog box will pop up automatically.

Click "Install"



Click "Finish" to complete the installation and restart the computer manually.



After the computer restarts, plug the microscope to the USB port of the computer. The PC will automatically proceed to the hardware installation of the Digital Microscope.

When the hardware installation is completed, short-cut icons will appear in "Programs" / "All Programs" on start menu, "Desktop" and "Taskbar" of the PC. The Digital Viewer can also be located in the "Device Manager" under Imaging Device.







2.4 Installation for Mac OS

Open the "Mac" folder of the CD drive and double click the "Digital Viewer Driver OSX 1.04.dmg" file.



In the "Digital Viewer Driver OSX 1.04" folder Double click " Digital Viewer Driver install.pkg" to start installation.







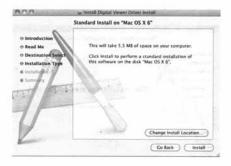
Click "Continue"



Click "Continue"



Click "Install"



Type your mac password and click "OK".



Click "Close" to finish installation. A Digital Viewer icon will appear on Desktop.





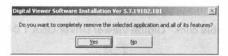
Uninstalling the Digital Viewer ™ Software

3.1 Uninstalling on Windows

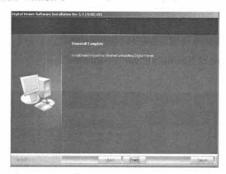
Select "Uninstall" on "Programs".



Click "Yes" to uninstall.



Click "Finish".



The Digital Viewer [™] Software has now been removed from your computer.

Alternatively, the Digital Viewer Software can be uninstalled with "Add or Remove Program" on "Control Panel".

3.2 Uninstalling on Mac

Double click " Digital Viewer Driver OSX 1.04".



Select "Digital Viewer Driver Uninstall.pkg".





Digital Viewer Driver Uninstall.pkg

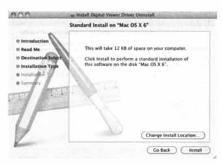
Click "Continue"



Click "Continue"



Click "Install"



Insert your mac password.



Click "Close" to complete uninstall.

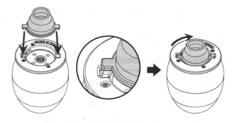


The Digital Viewer [™] Software has now been removed from your mac.

4. The Digital Microscope Operation

To View the images clearly, please use one of the adaptors provided.

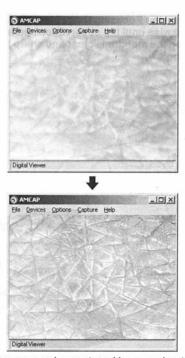
4.1 Choose an adaptor, place it into the adaptor slot located under the main body. Lock by turning in clockwise direction.



- 4.2 Connect the USB Cable (8) of the Digital Microscope to a USB port of the computer. The LED light will turn on indicating that the Digital Microscope is powered on.
- 4.3 Start up the Digital Viewer [™] software which is installed in the computer (Refer to Chapter 5 and 6 of this Instruction Manual for detailed operating instruction of the software).

4.4 Rotate the Focusing Ring (2) clockwise or anticlockwise until the observation image shown on the monitor is clear and sharp (See figures below).





4.5 Image can be captured by pressing the Shutter Button (1) on the Digital Microscope.

(Refer to Chapter 5.3 and 6.1 of this Instruction Manual for detailed instruction on saving and capturing images).

The Digital Viewer[™] Software Operation for Microsoft ® Windows Operating System

5.1 Pull Down Menu

Double click the "Digital Viewer" short-cut icon on Desktop of the PC to open the program.



A) File



Set Capture File: Saving the video file

➤ Allocate File Space:

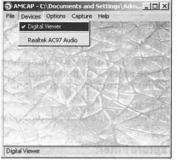
Set up the disk space allocated for video file. The default is set at minimum allocated disk space of 1MB. PC will automatically adjust the required disk space when needed.



> Save Captured Video As:

Saving the video file in another directory or under another file name.

B) Devices



> Digital Viewer:

Indicate the Imaging Device in use. If other Imaging Devices are available, make sure "Digital Viewer" is selected.

C) Options



>Preview:

When checked, the software is operating under PC Cam Mode and the Digital Microscope can be used for normal object observation.

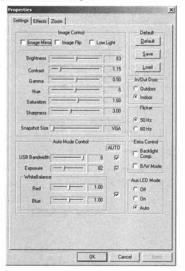
> Audio Format:

The Digital Microscope is not equipped with this function.

➤ Video Capture Filter:

Image Setting such as Brightness, Contrast, Gamma, Hue, Saturation, Sharpness, White Balance etc.

Properties-Settings



When the image shown on the monitor appears dark, checkthe "Low Light" box for brighter image.

When completed, click "Apply" then "OK" or simply click "OK".

Properties-Effects

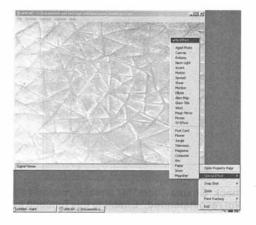


Add special effects to the image shown on the monitor.

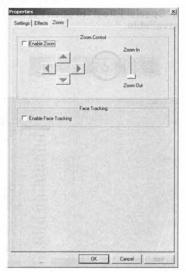
When completed, click "Apply" then "OK" or simply click "OK".

Note: Effects can also be set by right clicking the "Digital Viewer" icon located at the taskbar. Choose "Special Effect" to open the list of special effects available.





Properties-Zoom



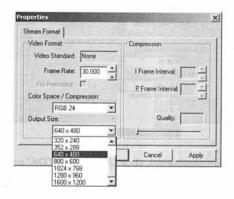
Check "Enable Zoom" for enabling digital zoom (Not recommended. Enabling this function may cause blurry image)

When completed, click "Apply" then "OK" or simply click "OK".

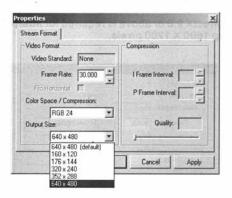
Video Capture Pin:

Select Desired video capture resolution. See below dialog box for reference.

DirectX 9.0 or above is required for Interpolation up 1600×1200 pixels.



Images are observed at 640 X 480 pixels without interpolation



When completed, click "Apply" then "OK" or simply click "OK".

D) Capture



➤ Start Capture: Start video capturing.

Stop Capture:

Stop video capturing.

➤ Capture Audio:

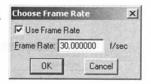
The Digital Microscope is not equipped with this function.

> Master Stream:

The Digital Microscope is not equipped with this function.

➤ Set Frame Rate:

Frame Rate Set-up. Default is set at 30f/sec.



> Set Time Limit:

Set up time duration for video capturing. The software will automatically stop recording when reaching the pre-set time limit.



E) Help



> About: Information about the software.



5.2 Video Capture

Under "File", select "Set Capture File" or select the directory for saving the video file. Enter the desired file name followed by [.avi] and click "Open". The following dialogue box will appear.



- Click "OK".
- Click on "Capture", select "Start Capture". The below dialogue box will appear.

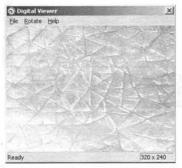


Click "OK" to start video capturing. Move the Digital Microscope to capture desired areas of the object.

- If Time Limit is set, the Digital Microscope will stop capturing automatically when the pre-set Time Limit is reached. If Time Limit is not set, under the "Capture" pull down menu, select "Stop Capture" to stop the video capturing.
- Note: Frame Rate and Time limit can be adjusted. Please refer to 5.1 for details.

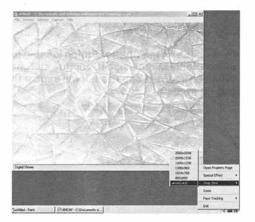
5.3 Captured Images

Press once on the Shutter Button located on top of the Digital Microscope to capture still image. When an image is captured, it will appear in a pop up window.



Note: Apart from using the shutter button, images can also be captured by right-clicking the "Digital Viewer" Icon located on the taskbar. Choose "Snap Shot" to capture image.





A) File

- Save as: Saving the captured image in another file name.
- > Close: Close the window



B) Edit

- Never Rotate: The image will not be rotated.
- Rotate 90 degrees CW: The image will be rotated 90 degrees clockwise.
- Rotate 90 degrees CCW: The image will be rotated 90
 - degrees counter-clockwise.
- Rotate 180 degrees: The image will be rotated 180 degrees.



C) Help

About Snapshot Viewer: Information about the software.





6. Using the Digital Microscope on Mac OS

Double click the Digital Viewer Icon. The below webcam list will pop up.





Double Click on "Digital Viewer" on webcam list to start observation.





6.1 Taking Snap Shots

Press on the shutter button located on top of the Digital Microscope to take snap shot. The image captured will appear in a pop up window.



Note: The image captured will automatically be saved on Desktop.

6.2 Video Recording

> Click "Record Video".





Click "Save" and start recording.

Click "Stop Recording" when recording is finished.



Locate the file and play video.



6.3 Video Setting

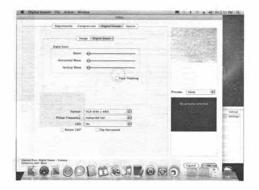
➤ Click "Video Setting".



The below window will appear. Various settings can be adjusted, by sliding the control bar as shown in below. Select "Default" to return back to default settings.



Digital Zoom Control digital zoom by sliding the control bar.

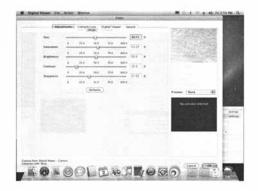


Setting Video Format Select "Format" and set your desired format.



Setting Colour Balance Adjust Hue, Saturation, Brightness and Contrast and Sharpness of video. Select

"Default" to return back to default settings.



7. Care & Storage

- Clean the Digital Microscope Casing with moistened cloth when necessary then wipe it dry. Never use chemical detergent to clean the Digital Microscope.
- Never leave the Digital Microscope in a damp or dusty place.
- In case the Digital Microscope will not be used for a prolonged time, store the Digital Microscope in its original box and keep it in a well ventilated environment and away from extreme heat or direct sunlight.

8. Warning

- Never attempt to open or dismantle the Digital Microscope.
- To avoid possible permanent eye damage, do not place lighted Digital Microscope directly upon human eye.

